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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,636	10/07/2005	Goran Sundholm	U 015966-3	8990
140	7590	10/15/2007		
LADAS & PARRY 26 WEST 61ST STREET NEW YORK, NY 10023			EXAMINER GORMAN, DARREN W	
			ART UNIT 3752	PAPER NUMBER
			MAIL DATE 10/15/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/552,636		SUNDHOLM ET AL.	
	Examiner		Art Unit	
	Darren W. Gorman		3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Minor Claim Suggestions By Examiner

1. The following change is recommended to improve clarity of the claims. The claims have been examined on the merits including the suggested change below.

- In claim 2, on line 1, "ap-paratus" should be replaced with --apparatus--

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claims 4 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 4, the recitation, "the means for... releasing" lacks antecedent basis. Claim 2, from which claim 4 now depends, does not include antecedent basis for the "releasing" portion of the above recitation.

Regarding claim 10, the recitation, "the means for locking" lacks antecedent basis. Claim 3, from which claim 10 depends, does not include antecedent basis for the "locking" portion of the above recitation.

Response to Arguments

4. Applicant's arguments, see pages 8-9 of the "Remarks" section of the response filed September 4, 2007, with respect to the rejection of claims 1-8 under 35 U.S.C. 102(b) as being anticipated by Sprakel et al. (US Patent No. 5, 967,239) have been fully considered. The aforementioned arguments, as presented, are somewhat unclear to the Examiner, however upon further consideration of the prior art to Sprakel et al., in view limitations recited in claim 1, the Examiner cannot reasonably maintain the rejection of claims 1-10 under 35 U.S.C. 102(b) for the following reasons. As per Sprakel, when a fire occurs in the vicinity of the disclosed sprinkler system, the heat of the fire will cause at least one of the glass vials (13) of at least one of the sprinkler heads to be destroyed (see column 5, lines 58-61). As a result of the spring force from the spring (26), the piston is moved in the direction of the front (7) of the sprinkler head (see column 5, lines 61-63). As a result of this movement, channel (20) is fluidly connected to the retainers (3) by way of space (19) and chamber (17) so that extinguishing fluid emanates from the nozzles attached to the retainers (3) (see column 5, lines 63-67). Since the blocking element (23) of Sprakel seals the blind hole (15) of the piston (6) (as noted by Applicant in the "Remarks" section), then in this or these sprinkler head(s) where the glass vial(s) (13) have been destroyed, the blocking element (23) of Sprakel remains intact and connected to the piston (6) when the piston moves from the first position (as shown in Figure 1) to the second position (not shown) in the direction of the front (7) of the sprinkler head. Thus, this or these sprinkler head(s) (i.e. the initially activated sprinkler head(s) of the system), cannot reasonably anticipate the recitation wherein the "supporting element can be moved between a first position... and a second position where the supporting element does not support the blocking element", as recited in

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claim 1, since the supporting element(s) of this or these sprinkler head(s) of Sprakel continue to support the blocking element(s) in the second position.

Further, as per Sprakel, the drop in supply pipe pressure due to the issuance of extinguishing fluid from the initially activated sprinkler head(s) is detected by the monitoring and control system (see column 6, lines 1-3). The monitoring and control system then transmits a control signal to the pressure generator (28), which then increases the extinguishing fluid pressure in the supply pipe system (see column 6, lines 3-7). When the supply pipe system pressure reaches a preset value, the blocking elements (23) of the other remaining sprinkler heads in the system (i.e. the ones where the glass vials (13) had not been destroyed by the heat from the fire) subsequently burst, which permits the extinguishing fluid to communicate from the piping system, through the connecting channel (25), to the blind hole (15), through the bore holes (16) and to the nozzle retainers (3) for issuance through the nozzles attached to the retainers (3). Thus, none of these sprinkler heads cannot reasonably anticipate the recitation wherein the “supporting element can be moved between a first position where the supporting element supports the blocking element so that the blocking element cannot be ruptured even if the pressure difference in the passage between the first and second sides of the blocking element is greater than the preset value, and a second position where the supporting element does not support the blocking element”, as recited in claim 1, since the blocking elements of these sprinkler heads of Sprakel (i.e. the subsequently activated sprinkler heads) burst while the supporting elements are still in their first position, and the supporting elements continue to support the blocking elements in their second position.

Therefore, the rejection of claims 1-8 under 35 U.S.C. 102(b) in view of Sprakel et al. has been withdrawn.

However, upon further consideration, a new ground of rejection is made in view of German Patent Publication No. DE 3444486 to Litsch et al., as set forth below.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Litsch et al., German Patent Publication No. DE 3444486.

Litsch (see Figure 1) shows a fire sprinkler head comprising: a fire extinguishing medium flow passage (10); a burst disk (15) arranged in the passage, which, when unbroken, blocks the passage of the medium flow from a first upstream side of the burst disk to a second downstream side of the burst disk, wherein on the first upstream side of the burst disk a first pressure prevails, and on the second downstream side a second pressure prevails, the burst disk arranged to be ruptured so that a medium flow passage is formed through the burst disk when a pressure difference between the first and the second sides of the burst disk reaches a preset value. Litsch further shows the fire sprinkler head comprising a supporting element (17) provided on the second downstream side of the burst disk where the pressure of the medium is lower at least just before the instant of rupture of the burst disk, wherein the supporting element can be moved

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between at least two positions, a first position where the supporting element supports the burst disk so that the burst disk cannot be ruptured (as shown in Figure 1), and a second position (shown in phantom in Figure 1) where the supporting element does not support the burst disk.

Still further, Litsch shows the fire sprinkler head comprising a means for locking (19, 23, 24, 29, 30, 31) the supporting element in the first position, and a means for releasing (19, 23, 24, 29, 30, 31) the supporting element from the first position, the means for locking and releasing the supporting element comprising a heat sensitive element (31).

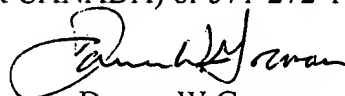
Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Darren W. Gorman whose telephone number is 571-272-4901. The examiner can normally be reached on M-F 7:30-5:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on 571-272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Darren W Gorman
Examiner
Art Unit 3752

 10/9/07

DWG

October 9, 2007